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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/902,839

07/11/2001

Hiroaki Tamai

FUJR 18.823

9504

26304

7590

11/17/2004

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EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/902,839	<b>Applicant(s)</b> TAMAI, HIROAKI	
	<b>Examiner</b> Andrew C Lee	<b>Art Unit</b> 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 - 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07-11-2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 – 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Zheng et al. (U.S. Patent No. 6611522 B1).

Regarding Claims 1 and 8, Zheng et al. discloses the limitation of a packet switch apparatus and method sending a packet stored in a common memory to a plurality of paths having different bit rates (column 3, lines 26 – 28; column 5, lines 1 – 8; lines 33 – 38), comprising: storing means for storing a packet to be sent to at least one path in a free space of the common memory (Fig. 33, element 610; column 28, lines 52 – 57);

enqueueing means for enqueueing a pointer indicating said packet stored in the shared memory to queues corresponding to paths to which said packet is scheduled to be sent (column 30, lines 2 – 4; lines 12 – 15); sending means for dequeuing the pointer enqueueed by said enqueueing means for each of the queues corresponding to the paths (column 30, lines 26 – 30) and sending the packet indicated by the pointer dequeued to the paths corresponding to the queues at the respective transmission bit rate thereof (column 30, lines 30 – 32); discarding means for discarding, on a queue basis, pointers from a head thereof in which it is determined that the number of pointers enqueueed by said enqueueing means exceeds a predetermined threshold value (column 29, lines 56 – 64); and free-address management means for setting the free space of the common memory that is occupied by the packet to a busy state (column 26, lines 46 – 54) and changing the free space that is now in the busy state to a free state when the pointer indicating said packet is dequeued or discarded from all of the queues to which said packet is scheduled to be sent (column 26, lines 54 – 60).

Regarding Claims 2 and 9, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said sending means comprises schedulers provided to the respective paths (Fig. 8, element 124; Fig. 9, element 144; column 30, lines 39 – 52), said schedulers dequeuing the pointer enqueueed by said enqueueing means (column 30, lines 37 – 39).

Regarding Claims 3 and 10, Zheng et al. discloses the limitation of a packet

switch apparatus and method according to claimed wherein the paths include a virtual path to which an arbitrary output bit rate based on an ensured band is designated (column 13, lines 42 – 46; lines 52 – 54).

Regarding Claims 4, 5, 11 and 12, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said discarding means sets a discard initiation threshold value for each of the queues (column 2, lines 18 – 27; lines 32 – 36; lines 52 - 56), and starts to discard pointers from one of the queues if the number of pointers enqueued to said one of the queues exceeds said discard initiation threshold value (column 29, lines 56 – 64).

Regarding Claims 6 and 13, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said free-address management means manages status of enqueueing and dequeuing of pointers on the path basis by using a set of flags that is provided for each address of the common memory, the flags respectively corresponding to the paths (column 28, lines 58 – 62).

Regarding Claims 7 and 14, Zheng et al. discloses the limitation of a packet switch apparatus and method according to claimed wherein said free-address management means returns the address of the free space to the free state when said free-address management means turns ON all of the set of flags related to each of the paths (column 21, lines 12 – 17; lines 21 – 25; column 28, lines 58 – 62), said all of the

set of flags including a flag related to a path to which said packet is not scheduled to be sent, a flag related to a path to which said packet has been sent, and a flag related to a path in which the pointer indicating said packet has been discarded (column 21, lines 43 – 65) .

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

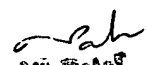
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Anil Patel  
Primary Examiner